REMARKS

Claims 1-36 are pending while claims 1-36 have been rejected under 35 U.S.C. §103(a). Claims 1, 23, and 31 have been amended while claim 37 is newly added, leaving claims 1-37 for consideration upon entry of this amendment. No new matter has been added.

Claim Rejections -35 USC §103

Claims 1-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Engel et al. (5,861,683) in view of Weynachter (6,127,742). Applicants respectfully traverse.

The examiner correctly points out that Engel et al. disclose a panelboard for distributing electricity within a customer's residence. The Examiner also admits that Engel et al. does not disclose control of the main circuit breaker (42) nor that trip settings can be provided by control module or host controllers as the gist of Engle et al. is drawn to load control/shedding. Further, the Examiner alleges that Engel et al. disclose that the controlled breakers 28,30 have an electromagnetic actuator (see Fig. 2).

More specifically, Engel et al. disclose that the RCBs 28,30 include a line terminal 86, a load terminal 88 and separable contacts 89 between the line terminal 86 and the load terminal 88. The separable contacts 89 include a first pair of separable contacts 90 in series with a second pair of separable contacts 92, with the CB 80 controlling the separable contacts 90 **and** the contactor 82 controlling the separable contacts 92. The contactor 82 includes a remotely controllable actuator, such as operating mechanism 94, for actuating the separable contacts 92 and switching a circuit 96 from a power line (not shown) connected to the line terminal 86 to a load (not shown) connected to the load terminal 88. The operating mechanism 94 includes a control input, formed by terminals 98,100, for switching the separable contacts 92, and a coil 102, such as the exemplary 24 VDC coil. The contactor 82 is controlled by the coil 102 such that when voltage is applied to the coil 102 the contactor 82 is opened and the circuit 96 is de-energized. Col. 6, lines 13-30. Engel does not teach a pair of separable contacts as a sole

switching means in said each branch circuit breaker, as in newly added claim 37. Thus claim 37 defines over Engel et al.

In addition, the Examiner alleges that Weynachter teaches the use of removable/replaceable circuit breakers (2), which can communicate over a communication network (6). The Examiner further alleges that Weynachter discloses breakers having current sensors (12) and setting devices (11) for setting current thresholds and time delays (i.e. short, long delays); the setting device (11) is accessible by the user (i.e. switches, pushbuttons, readouts and displays). See Col. 6, lines 29-51. Further, the examiner states that the setting values can also be received remotely over the communication lines (6) from another source.

The Examiner concludes that it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the teachings of Weynachter into the panelboard system of Engel et al. so as to be able to set new breakers when the circuit breakers are being replaced or to be able to customize when different loads having different load requirements are to be connected to the particular branch circuit, thereby increasing applications, ensuring the desired load protection and avoiding unnecessary nuisance trippings. The Examiner also concludes that it would have been obvious to be able to control the main circuit breaker via the controller as a means to remotely trip the breaker for maintenance purposes, thereby increasing safety.

In particular, Weynachter relates to a draw-out electrical switchgear apparatus including circuit breakers comprising electronic processing units equipped with setting devices. Said settings notably concern tripping curves which require the current threshold and time delay value parameters to be set. When these settings are complex, the processing units store the setting parameters in memory. Col. 1, lines 18-36. Thus, Weynachter teaches away from Applicants' invention. More specifically, Weynachter teaches electronic processing units incorporated in each of the removable circuit breakers, not likely found in a residential panelboard circuit breaker.

Weynachter does not teach or suggest **a single electronic control module** for controlling said main circuit breaker and said plurality of branch circuit breakers, as in amended claim 1 and new claim 37; **a single microcontroller** configured to operably monitor and control said plurality of circuit breakers, as in amended claim 23; and

receiving a trip setting value selected for each branch circuit of a plurality of branch circuits in **the single controller**, as in amended claim 31. Thus claims 1, 23, 31, and 37, including claims depending therefrom, i.e., claims 2-22, 24-30, and 32-36, define over Engel et al. in view of Weynachter.

Moreover, it is respectfully submitted that one skilled in the art would not look to the switchgear art for suggestion or motivation to modify the panelboard art, as they are completely different animals. More specifically, a switchgear is an upstream large current switching device for use with downstream circuits, such as a downstream circuit to a panelboard power distribution circuit. Such a panelboard includes circuit breakers designed to trip upon a downstream overload current in a corresponding branch circuit, wherein the upstream switchgear device is designed to prevent unnecessary tripping in other circuits connected thereto as a result of the downstream overload on the corresponding branch circuit. In this manner, the upstream switchgear device will not trip unnecessarily shutting power off from the other downstream circuits.

Furthermore, page 1 of the specification as originally filed explains that "industrial circuit breakers have used the concept of rating plugs with electronic trip units for many years to set the current ratings thereof. By inserting a rating plug, having a discrete resistance value, into a circuit breaker trip unit, the current rating is set for the industrial circuit breaker. Residential circuit breakers do not have the size or cost structure to accept rating plugs and consequently, residential circuit breakers are for practical purposes limited to a predetermined current rating." As discussed above, Weynachter discloses a complex removable circuit breaker (1) having a processing unit (10) incorporated therewith. The processing unit (10) includes a setting device (11) accessible to the user for receiving multiple setting parameters, thus teaching away from the desired residential circuit breaker for a panelboard. (See col. 3, lines 2-8.)

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success,

determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugal Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Further, even assuming that all elements of an invention are disclosed in the prior art, an Examiner cannot establish obviousness by locating references that describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would have impelled one skilled in the art to do what the patent applicant has done. *Ex parte Levengood*, 28 U.S.P.Q. 1300 (Bd. Pat. App. Int. 1993). The references, when viewed by themselves and not in retrospect, must suggest the invention. *In Re Skoll*, 187 U.S.P.Q. 481 (C.C.P.A. 1975).

Neither Weynachter nor the panelboard circuit breaker art as a whole provide a reason for one of ordinary skill in the art to modify Engel et al. in the manner required to meet claims 1, 23, or 31. *In re Laskowski*, 871 F.2d 115, 117, 10 U.S.P.Q.2d 1397, 1398 (Fed. Cir. 1989) ("Although the Commissioner suggests that [the structure in the primary art reference] could readily be modified to form the [claimed] structure, '[t]he mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification' ") (citation omitted); *In re Stencel*, 828 F.2d 751, 755, 4 U.S.P.Q.2d 1071, 1073 (Fed. Cir. 1987) (obviousness cannot be established "by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion that the combination be made"). There is no teaching or suggestions to combine elements of the prior art to produce the present invention. The present invention is thus nonobvious.

CONCLUSION

It is believed that the foregoing remarks fully comply with the Office Action and that claims 1-37 are allowable. Accordingly, reconsideration and allowance is requested.

If, however, any issues remain, the Examiner is cordially invited to contact the undersigned so that such issues may be promptly resolved.

In the event any further fees are due with respect to this amendment or otherwise, please charge them to Deposit Account No. 06-1130, maintained Applicants' Attorneys. If there are any additional charges with respect to this amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicants' attorneys.

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